

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1-39. (canceled)

40. (Previously presented) A purified polypeptide comprising the amino acid sequence of SEQ ID NO:5.

41. (Previously presented) The purified polypeptide of claim 40 wherein said polypeptide is recombinantly produced.

42-44. (Canceled)

45. (Previously Presented) A purified polypeptide comprising amino acids 750-977 of the amino acid sequence of SEQ ID NO:5.

46-53. (Canceled)

54. (Currently amended) An immunogenic composition comprising an immunologically effective amount of a recombinant, purified polypeptide, which recombinant polypeptide comprises amino acids 750-977 of the amino acid sequence of SEQ ID NO:5.

55-56. (Canceled)

57. (Currently amended) An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, which first polypeptide comprises at least ~~ten~~ 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said first polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter*

*pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

58. (Canceled)

59. (Previously Presented) The immunogenic composition of claim 57 wherein said second polypeptide comprises at least fifteen contiguous amino acids of the *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

60-61. (Canceled)

62. (Previously Presented) A method of preparing an immunogenic composition comprising bringing into association:

- (1) an immunologically effective amount of a purified polypeptide, which polypeptide comprises amino acids 750-977 of the amino acid sequence of SEQ ID NO:5, and
- (2) a pharmaceutically acceptable carrier.

63. (Currently amended) A method of preparing an immunogenic composition comprising:

bringing into association (1) an immunologically effective amount of a first purified polypeptide, which first polypeptide comprises at least ~~ten~~ 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and (2) a pharmaceutically acceptable carrier, and

adding an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

64-67. (Canceled)

68. (Previously presented) The purified polypeptide of claim 45, wherein said polypeptide is recombinantly produced.

69. (Canceled)

70. (Currently amended) An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, which first polypeptide comprises at least ~~ten~~ 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second polypeptide, wherein said second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* cytotoxin (CT) protein, wherein said CT protein comprises the amino acid sequence of SEQ ID NO:3.

71-77. (Canceled)

78. (Previously Presented) The method of claim 62 wherein said purified polypeptide is a recombinant polypeptide.

79. (Canceled)

80. (Previously Presented) The immunogenic composition of claim 70 wherein said second polypeptide comprises at least fifteen contiguous amino acids of the *Helicobacter pylori* CT protein, wherein said CT protein comprises the amino acid sequence of SEQ ID NO:3.

81. (Currently amended) An isolated, purified immunogenic polypeptide comprising a *Helicobacter pylori* cytotoxin associated immunodominant antigen (CAI) comprising amino acids 750-977 of the amino acid sequence of SEQ ID NO:5.

82-87. (Canceled)

88. (Previously presented) The polypeptide of claim 81, wherein said polypeptide is a recombinant polypeptide.

89-122. (Canceled)

123. (Currently amended) An isolated, purified immunogenic polypeptide encoded by a polynucleotide sequence comprising nucleotides 2782-3466 of the nucleotide sequence of SEQ ID NO:4.

124-126. (Canceled)

127. (Previously presented) An isolated immunogenic polypeptide encoded by the polynucleotide sequence of SEQ ID NO:4.

128-139. (Canceled)

140. (Previously Presented) The method of claim 63 wherein said first purified polypeptide is a recombinant polypeptide.

141. (Currently amended) An immunogenic composition comprising an immunologically effective amount of a purified polypeptide comprising amino acids 750-977 of the amino acid sequence of SEQ ID NO:5.

142. (Currently amended) An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, wherein said first polypeptide comprises amino acids 750-977 of the amino acid sequence of SEQ ID NO:5, and an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

143. (Previously Presented) The immunogenic composition of claim 142 wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

144. (Previously Presented) The immunogenic composition of claim 142 wherein said heat shock protein is a recombinant polypeptide.

145. (Previously Presented) The immunogenic composition of claim 142 wherein said first polypeptide comprises the amino acid sequence of SEQ ID NO:5.

146. (Previously Presented) The immunogenic composition of claim 142 wherein said first polypeptide is a recombinant polypeptide.

147. (Currently amended) An immunogenic composition comprising an immunologically effective amount of a first purified polypeptide, wherein said first polypeptide comprises amino acids 750-977 of the amino acid sequence of SEQ ID NO:5, and an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* cytotoxin protein, wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

148. (Previously Presented) The immunogenic composition of claim 147 wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

149. (Previously Presented) The immunogenic composition of claim 147 wherein said first polypeptide comprises the amino acid sequence of SEQ ID NO:5.

150. (Previously Presented) The immunogenic composition of claim 147 wherein said cytotoxin protein is a recombinant polypeptide.

151. (Previously Presented) The immunogenic composition of claim 147 wherein said first polypeptide is a recombinant polypeptide.

152. (Previously Presented) The immunogenic composition of claim 54 wherein said recombinant polypeptide comprises the amino acid sequence of SEQ ID NO:5.

153. (Previously Presented) The method of claim 62 wherein said polypeptide comprises the amino acid sequence of SEQ ID NO:5.

154. (Previously Presented) A method of preparing an immunogenic composition comprising bringing into association (1) an immunologically effective amount of a purified first polypeptide, which first polypeptide comprises amino acids 750-977 of the amino acid sequence of SEQ ID NO:5 and (2) an immunologically effective amount of a second polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* cytotoxin protein, wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

155. (Previously Presented) The method of claim 154 wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

156. (Currently amended) The ~~immunogenic composition~~ method of claim 154 wherein said first polypeptide comprises the amino acid sequence of SEQ ID NO:5.

157. (Currently amended) The ~~immunogenic composition~~ method of claim 154 wherein said cytotoxin protein is a recombinant polypeptide.

158. (Currently amended) The ~~immunogenic composition~~ method of claim 154 wherein said first polypeptide is a recombinant polypeptide.

159. (Previously Presented) A method of preparing an immunogenic composition comprising bringing into association (1) an immunologically effective amount of a purified first polypeptide, which first polypeptide comprises amino acids 750-977 of the amino acid sequence of SEQ ID NO:5 and (2) an immunologically effective amount of a second polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

160. (Previously Presented) The method of claim 159 wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

161. (Previously Presented) The method of claim 159 wherein said heat shock protein is a recombinant polypeptide.

162. (Previously Presented) The method of claim 159 wherein said first polypeptide comprises the amino acid sequence of SEQ ID NO:5.

163. (Previously Presented) The method of claim 159 wherein said first polypeptide is a recombinant polypeptide.

164. (Previously Presented) The immunogenic composition of claim 57 wherein said first polypeptide is a recombinant polypeptide.

165. (Previously Presented) The immunogenic composition of claim 57 wherein said second polypeptide is a recombinant polypeptide.

166. (Previously Presented) The immunogenic composition of claim 57 wherein said second polypeptide comprises the amino acid sequence of SEQ ID NO:6.

167. (Previously Presented) The immunogenic composition of claim 70 wherein said first polypeptide is a recombinant polypeptide.

168. (Previously Presented) The immunogenic composition of claim 70 wherein said second polypeptide is a recombinant polypeptide.

169. (Previously Presented) The immunogenic composition of claim 70 wherein said second polypeptide comprises the amino acid sequence of SEQ ID NO:3.

170. – 171. (Canceled)

172. (Currently amended) A method of preparing an immunogenic composition comprising: bringing into association an immunologically effective amount of a first purified polypeptide, which polypeptide comprises at least ~~ten~~ 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous

amino acids of *Helicobacter pylori* heat shock protein, wherein said heat shock protein comprises the amino acid sequence of SEQ ID NO:6.

173. (Previously Presented) The method of claim 172 wherein said first polypeptide is a recombinant polypeptide.

174. (Previously Presented) The method of claim 172 wherein said second polypeptide is a recombinant polypeptide.

175. (Previously Presented) The method of claim 172 wherein said second polypeptide comprises the amino acid sequence of SEQ ID NO:6.

176. (Currently amended) A method of preparing an immunogenic composition comprising: bringing into association an immunologically effective amount of a first purified polypeptide, which polypeptide comprises at least ~~ten~~ 11-15 contiguous amino acids of the amino acid sequence of SEQ ID NO:5, wherein said polypeptide comprises at least one of the amino acid sequences selected from the group consisting of SEQ ID NO:9, SEQ ID NO:10, and six contiguous asparagine residues, and an immunologically effective amount of a second purified polypeptide, which second polypeptide comprises at least ten contiguous amino acids of *Helicobacter pylori* cytotoxin protein, wherein said cytotoxin protein comprises the amino acid sequence of SEQ ID NO:3.

177. (Previously Presented) The method of claim 176 wherein said first polypeptide is a recombinant polypeptide.

178. (Previously Presented) The method of claim 176 wherein said second polypeptide is a recombinant polypeptide.

179. (Previously Presented) The method of claim 176 wherein said second polypeptide comprises the amino acid sequence of SEQ ID NO:3.

180. (Previously Presented) The method of claim 63 wherein said second purified polypeptide is a recombinant polypeptide.